

HUDSON BAY

MINING AND SMELTING CO., LIMITED

ANNUAL REPORT

1966



YASU MOEDRILL
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1885-1966

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THIRTY-NINTH ANNUAL MEETING OF SHAREHOLDERS:

April 28, 1967
at Royal York Hotel
Toronto, Canada

- A request for proxies will be mailed to all shareholders during the latter part of March, 1967.



HUDSON BAY MINING AND SMELTING CO., LIMITED

HEAD OFFICE	333 BROADWAY, WINNIPEG 1, MANITOBA, CANADA
MINE OFFICE	FLIN FLON, MANITOBA
TORONTO OFFICE	25 KING STREET WEST, TORONTO 1, ONTARIO, CANADA
NEW YORK OFFICE	280 PARK AVENUE, NEW YORK, N.Y. 10017
CAPITAL	AUTHORIZED 3,000,000 Shares of no par value ISSUED AND OUTSTANDING 2,820,473 Shares of no par value
DIRECTORS	SIR KEITH ACUTT, K.B.E. ALLEN T. LAMBERT ERIC S. AUSTIN J. F. McCARTHY CHARLES W. ENGELHARD H. C. F. MOCKRIDGE, Q.C. GEORGE M. FRANCIS MAURICE W. RUSH W. A. GREEN C. V. WHITNEY
OFFICERS	MAURICE W. RUSH Chairman of the Board ERIC S. AUSTIN President GEORGE M. FRANCIS Vice-President J. F. McCARTHY Secretary and Treasurer A. R. BLAKE Assistant Secretary and Assistant Treasurer E. A. RUMMERY Assistant Secretary and Assistant Treasurer
TRANSFER AGENTS	MORGAN GUARANTY TRUST COMPANY OF NEW YORK 23 Wall St., New York, N.Y. THE ROYAL TRUST COMPANY 105 St. James Street West, Montreal, Quebec THE ROYAL TRUST COMPANY 66 King Street West, Toronto 1, Ontario THE ROYAL TRUST COMPANY 287 Broadway Avenue, Winnipeg 1, Manitoba THE ROYAL TRUST COMPANY 626 West Pender Street, Vancouver, British Columbia
REGISTRARS	THE CHASE MANHATTAN BANK 1 Chase Manhattan Plaza, New York, New York MONTREAL TRUST COMPANY 777 Dorchester Blvd. West, Montreal 2, Quebec CROWN TRUST COMPANY 302 Bay Street, Toronto 1, Ontario CROWN TRUST COMPANY 364 Main Street, Winnipeg 1, Manitoba CROWN TRUST COMPANY 455 Howe Street, Vancouver, British Columbia
AUDITORS	DELOTTE, PLENDER, HASKINS & SELLS Winnipeg, Manitoba

COMPARATIVE HIGHLIGHTS

	1966	1965	1964	1963	1962
FINANCIAL					
Operating Revenue	\$ 69,112	\$ 61,703	\$ 56,377	\$ 51,225	\$ 49,397
Other Income	1,490	1,486	1,435	1,253	1,041
Net Earnings	19,116	15,990	13,095	11,737	11,302
Working Capital	34,108	35,467	43,723	47,590	47,467
Marketable Securities	20,817	18,852	7,638	2,194	—
Exploration and Other Interests	10,688	3,263	1,852	1,637	1,488
Depreciation and Depletion	1,812	1,652	1,824	1,950	2,203
Retained Earnings	63,412	55,466	49,818	46,376	43,602
(Dollars)					
Net Earnings per share	\$6.93	\$5.80	\$4.75	\$4.26	\$4.10
Dividends per share	4.05	3.75	3.50	3.25	3.00
PRODUCTION					
Copper (tons)	38,268	39,726	40,417	37,301	37,023
Zinc (tons)	73,331	71,435	71,012	79,596	80,766
Cadmium (lbs.)	352,405	368,208	329,552	316,050	317,495
Gold (ozs.)	71,202	82,189	80,174	83,878	85,552
Silver (ozs.)	1,022,009	1,215,359	1,179,888	1,167,160	1,185,596
Selenium (lbs.)	76,602	62,061	70,335	77,429	76,740
Lead Concentrates (tons)	1,103	2,375	2,598	5,138	7,387

PROPERTIES and Subsidiary Companies

PROPERTIES:

Flin Flon Mine and Metallurgical Plants.
Schist Lake Mine.
White Lake Mine.
Chisel Lake Mine.
Stall Lake Mine.
Osborne Lake Mine.
Anderson Lake Mine.
Ghost Lake Mine.

WHOLLY OWNED SUBSIDIARY COMPANIES:

Churchill River Power Company Limited.
Northern Manitoba Power Company Limited.
Northern Power Limited.
Hudson Bay Exploration and Development Company Limited.
Hudson Bay Air Transport Limited.
Beaver Exploration Company.
Zinc Oxide Company of Canada Limited.
Durham Industries (Canada) Ltd.
Hudson Bay Diecastings Limited.
Hudson Bay Holdings Limited.

MAJORITY CONTROLLED SUBSIDIARY COMPANIES:

Manitoba Chromium Limited.
Flexar Mines Limited.
Hudson-Yukon Mining Co., Limited.
Francana Oil & Gas Ltd.

PROPERTIES WITH MINING RIGHTS:

Dickstone Copper Mines Limited.

REPORT OF THE DIRECTORS

To the Shareholders

The year 1966 was a favorable one for the non-ferrous metal mining industry. Demand for copper, zinc and other Hudson Bay products continued strong with the result that your Company's earnings and dividends were the highest for many years.

Net earnings amounted to \$19,116,388 or \$6.93 per share, an increase of 19.6 per cent over comparable 1965 earnings of \$15,990,045 or \$5.80 per share.

Dividends were increased for the fourth successive year. Four quarterly dividends of 85 cents each and a year end dividend of 65 cents were paid, making a total of \$4.05 per share compared with \$3.75 for the previous year.

Your Company continued to invest a portion of its funds in the common shares of leading Canadian companies, and also through a wholly-owned subsidiary maintained its portfolio of South African gold and diamond shares. At the close of 1966 the total cost of marketable securities of other companies was \$20,816,981 of which \$18,707,711 had been placed in Canadian and \$2,109,270 in South African investments. Additional funds allocated for equity investment during 1966 amounted to \$1,965,077.

At the year end an agreement was concluded with Credit Foncier Franco-Canadien whereby your Company acquired a controlling interest in Francana Oil & Gas Ltd. Under the terms of the agree-

ment Hudson Bay received from Credit Foncier 120,000 fully paid and non-assessable shares of Francana representing 60 per cent of the authorized and issued shares of that Company. In return, Credit Foncier was allotted 62,500 Hudson Bay shares at \$64 per share plus a cash consideration in the amount of \$3,200,000. Francana is a well established, Saskatchewan-based Company with growing interests in oil and gas properties. It owned, at the year end, varying interests in 91 producing oil wells within Saskatchewan and 9 natural gas producers in Central Alberta. Land holdings in the three prairie provinces total some 364,000 gross acres. Francana also has an agreement with Tombill Mines Limited providing for the development of the Sylvite of Canada Ltd. potash property situated in the Esterhazy area of Saskatchewan. By acquiring the controlling interest in Francana your Company, pursuing its policy of diversification, has gained an entry into the oil and gas industry as well as a valuable interest in a proven and highly regarded potash property.

Feasibility studies pertaining to the exploitation of the high grade iron deposits of Baffinland Iron Mines Limited, in which your Company holds a 17.8 per cent interest, were completed during the year. The Federal Government has been approached to determine what co-operation and assistance it is willing to provide, particularly in the fields of transportation, harbor facilities, power supply, schools, hospitals and Eskimo housing, to make

possible the development of this fine ore body located in the remote wilderness of northern Baffin Island. A limited work programme was undertaken at the property during the summer months. The air strips and road were improved, while some stripping was performed on the orebody for purposes of assessing physical characteristics.

Further work was carried out during the year by Kennco (Stikine) Mining Limited on the Stikine Copper Limited property in northern British Columbia. A 30-mile access road from the Scud River to the property was completed in August. A programme of detailed diamond drilling was undertaken to further outline the ore potential of the property in which your Company holds a 19 per cent interest. Some 2500 feet of adit workings were completed during the year for the purpose of evaluating rock and groundwater conditions.

Extensive exploration for new ore was carried out during the year as described in the annual report of the General Manager, which follows. The report gives a comprehensive coverage of the operations of the Company throughout the year.

Ore developed at the various mines during the year almost equalled the ore mined, with the result that the ore reserves of the Company were practically unchanged. Total reserves at the year end amounted to 16,765,300 tons as compared to 16,842,400 tons on December 31st, 1965.

For some time your Company has been giving serious consideration to erecting a plant in Western Canada for recovery of the iron and sulphur values from the mill tailings produced at Flin Flon. Large scale tests were carried out during the year by Lurgi Chemie in Frankfurt, Germany, utilizing the

SL-RN method for iron reduction. One metallurgical problem remained unsolved at the year end; namely, the reduction of the arsenic content in the iron pellets to desired levels. Tests are continuing and it is felt that a solution to this problem will be found shortly. While it seems that there would be no difficulty in marketing iron pellets in Saskatchewan, no suitable outlet for sulphuric acid has as yet been found in that Province.

It is with deep regret that we report the death on September 3, 1966 of Mr. Norman C. Urquhart, a Director of your Company since March 13, 1950. Mr. Urquhart was a valued friend of the Company and his wise counsel will be greatly missed.

The vacancy on the Board was filled with the appointment of Mr. Allen T. Lambert, Chairman and President of The Toronto-Dominion Bank, and a Director of many leading Canadian companies.

Mr. M. W. Rush, who served as Chairman of the Board of your Company and President since April 24th, 1964, retired as President last April, but remains as Chairman of the Board.

The continued loyalty and efficiency of the staff and all employees is sincerely appreciated.



President.

March 8, 1967.

GENERAL MANAGER'S REPORT

January 13, 1967.

Mr. E. S. Austin, President,
Hudson Bay Mining and Smelting Co., Limited.

The following report covers operations of Hudson Bay Mining and Smelting Co., Limited and subsidiaries for the year 1966.

ORE TREATED

The mill treated 1,689,550 tons of ore, an increase of 49,222 tons over the previous year. Of the above, 62.14 per cent came from the Flin Flon Mine, 14.73 per cent from the Chisel Lake Mine, 17.27 per cent from the Stall Lake Mine, and 5.86 per cent from the Schist Lake Mine.

PRODUCTION

Metal production for the year was as follows: refined copper, 76,536,435 pounds; slab zinc, 146,662,521 pounds; cadmium, 352,405 pounds; selenium, 76,602 pounds; gold, 71,202 ounces; and silver, 1,022,009 ounces.

Also produced and sold were 1,103 tons of lead concentrates containing 2,238 ounces of gold, 33,556 ounces of silver, and 1,191,394 pounds of lead.

ORE RESERVES

Proven ore reserves as of December 31st, 1966, totalled 16,765,300 tons with the following average assays: Au, 0.042 oz. per ton; Ag, 0.72 oz. per ton; Cu, 2.94%; Zn, 4.4%; and Pb, 0.2%. At the end of the previous year the ore reserves were 16,842,400 tons.

MINE EXPLORATION

Diamond drilling for exploration purposes in the operating mines and in those under development amounted to 47,328 feet. Although this work revealed no major new ore occurrence, it resulted in significant additions to known orebodies at the Osborne Lake Mine, the Chisel Lake Mine, and the Stall Lake Mine.

General Manager's Report (Continued)

OPERATING MINES

Ore mined and hoisted from underground during 1966 was as follows:

MINE	Tons	AVERAGE ASSAYS				
		Au-oz./ton	Ag-oz./ton	Cu-%	Zn-%	Pb-%
FLIN FLON MINE	1,044,206	0.043	0.65	2.00	2.90	0.2
STALL LAKE MINE	291,826	0.044	0.29	4.89	0.70	—
CHISEL LAKE MINE	250,524	0.061	0.95	0.83	9.98	0.4
SCHIST LAKE MINE	99,079	0.033	1.13	4.78	6.31	—

Development at each of the four producing mines is shown in the following table. The amount of fill and exploration diamond drilling is also included.

MINE	Development Feet	Fill Cubic Yards	Exploration Diamond Drilling Feet
FLIN FLON MINE	10,331	316,741	3,143
STALL LAKE MINE	1,647	100,713	5,684
CHISEL LAKE MINE	5,600	15,790	9,442
SCHIST LAKE MINE	5,233	12,104	1,499

The production shaft at the Chisel Lake Mine was extended to the 1,450-foot level.

MINES UNDER DEVELOPMENT

Osborne Lake Mine (Manitoba)

Development work continued throughout the year at the Company's Osborne Lake Mine and amounted to 13,283 feet. The production shaft was completed to a depth of 2,402 feet. Diamond drilling for exploration purposes totalled 19,493 feet. Excavation for stations and pockets totalled 2,336 cubic yards.

Anderson Lake Mine (Manitoba)

Hoisting equipment was installed at the Company's Anderson Lake Mine and by year end shaft sinking was completed at 2,110 feet below the collar. Excavation for sumps, pockets, and stations amounted to 4,086 cubic yards.

Ghost Lake Mine (Manitoba)

Development work at this mine was confined to fabrication and painting of headframe steel. Diamond drilling for exploration purposes totalled 2,702 feet.

Flexar Mine (Saskatchewan)

Flexar Mine, located eight and one-half miles southwest of Flin Flon, is owned by Flexar Mines Limited. Hudson Bay Mining and Smelting Co., Limited controls Flexar Mines Limited through holding 80 per cent of the outstanding stock of that company.

Development work throughout the year amounted to 2,201 feet. The main shaft was completed at 1,168 feet below the collar. Diamond drilling for exploration purposes amounted to 5,365 feet. Excavation for pockets, sumps, and stations totalled 1,191 cubic yards.

OTHER PROPERTIES

Manitoba Chromium Limited and White Lake Mine in Manitoba, as well as Hudson-Yukon Mining Co., Limited in Yukon Territory, were inactive and their positions remain essentially unchanged.

An option to develop and mine the property of Dickstone Copper Mines Limited was exercised in November, 1966. The orebody is located near Morton Lake in Manitoba, about 25 miles west of Snow Lake.

CONCENTRATOR

The tonnage of ore treated in the concentrator during the year and the average assays of the ore treated are shown in the table below. Figures for 1965 are shown for comparison.

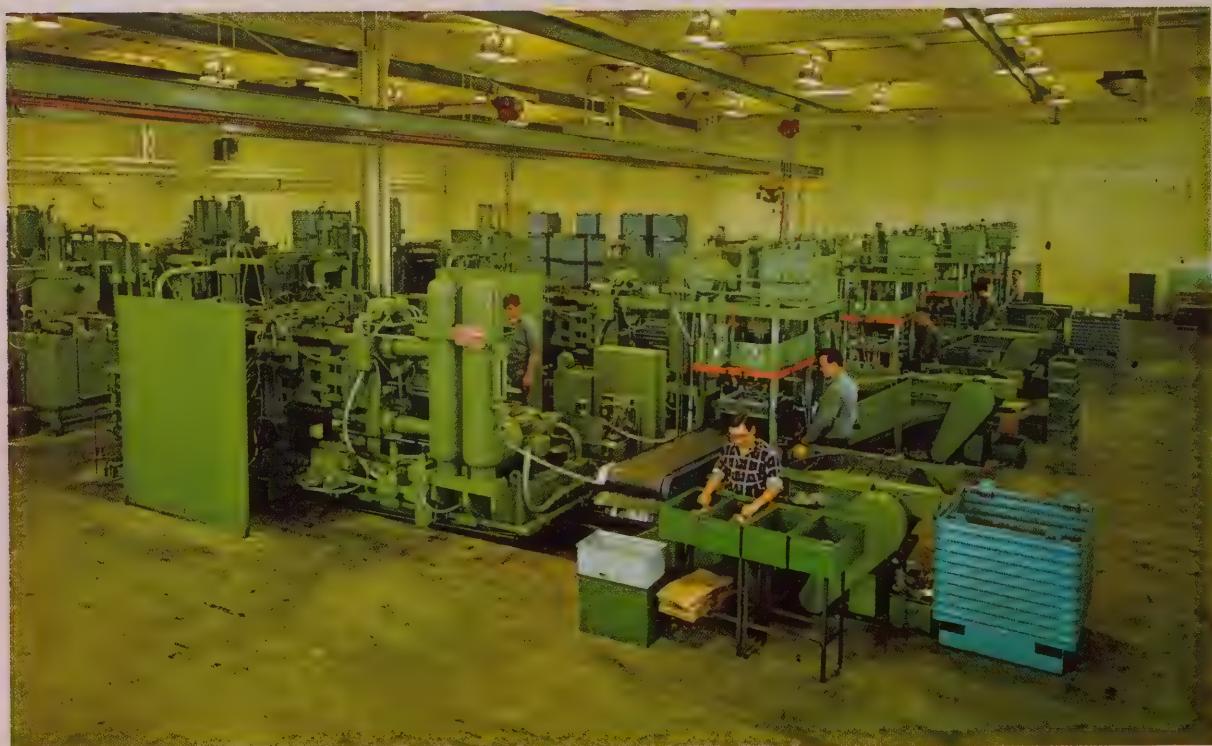
	1966	1965
Tons of ore treated	1,689,550	1,640,328
Average tons per day	4,629	4,494
Au — oz. per ton	0.045	0.054
Ag — oz. per ton	0.66	0.86
Cu — %	2.49	2.64
Zn — %	3.8	4.3
Pb — %	0.3	0.4

The following concentrates were produced from ore treated:

	<u>Tons</u>	ASSAYS				
		<u>Au-oz./ton</u>	<u>Ag-oz./ton</u>	<u>Cu-%</u>	<u>Zn-%</u>	<u>Pb-%</u>
Copper Concentrates	281,970	0.187	2.60	14.14	3.65	0.3
Zinc Concentrates	100,056	0.047	1.09	0.57	46.71	0.3
Lead Concentrates	1,107	1.925	28.69	1.44	7.35	51.1



Hudson Bay Diecastings Limited, Bramalea, Ontario



Diecasting Machines, Hudson Bay Diecastings Limited

General Manager's Report (Continued)

CYANIDE PLANT

The cyanide plant treated 1,033,669 tons of flotation tailings assaying 0.014 oz. per ton gold and 0.21 oz. per ton silver. The treatment yielded a zinc dust precipitate containing 7,142 ounces of gold, 82,396 ounces of silver, 43,951 pounds of copper, and 10,483 pounds of zinc; and a sludge product containing 291,473 pounds of copper and 242,768 pounds of zinc. The precipitate was delivered to the copper converters, while the sludge was returned to the copper concentrate thickener.

There were produced and stockpiled during the year 1,305,591 tons of tailings. The total tonnage and approximate assays of tailings stockpiled to date are as follows:

Tons Stockpiled	ASSAYS				
	Au-oz./ton	Ag-oz./ton	Cu-%	Zn-%	S-%
44,904,800	0.018	0.31	0.19	0.8	24.1
					27.0

ZINC PLANT

The zinc plant treated the following materials during the year:

	Tons Treated	ASSAYS			
		Au-oz./ton	Ag-oz./ton	Zn-%	Cu-%
Concentrates	102,275	0.047	1.10	46.7	0.57
Oxide	44,608	0.008	0.73	62.60	0.65
Custom Materials (Purchased)	19,883	—	0.01	55.95	0.32

Slab zinc production from the above amounted to 146,662,521 pounds.

Throughout the year 49,688 tons of zinc plant residue were produced of which 48,536 tons were delivered to the smelter and the remainder sent to stockpile. In addition, 12,706 tons of oxide residue were produced and stockpiled.

Residues in stock at the year end, as well as the average assays for these materials, are as follows:

	Tons	ASSAYS				
		Au-oz./ton	Ag-oz./ton	Cu-%	Zn-%	Pb-%
Zinc Plant Residue	281,357	0.142	3.81	1.04	26.5	—
Oxide Residue	210,514	0.073	3.10	1.15	17.2	13.6

General Manager's Report (Continued)

CADMIUM PLANT

Production of metallic cadmium was lower than in 1965. The purity of the product remained essentially the same.

	1966	1965
Cadmium Production — lbs.	352,405	368,208
Average Purity — %	99.9885	99.9796

COPPER SMELTER

A slightly lower tonnage of Hudson Bay copper concentrates was treated than during the previous year. This was also true in the treatment of residues and by-products. A higher tonnage of custom concentrates was treated.

The tonnage and average assay values of the materials smelted were as follows:

	Tons	ASSAYS			
		Au-oz./ton	Ag-oz./ton	Cu-%	Zn-%
Hudson Bay Concentrates	282,064	0.187	2.60	14.16	3.68
Residues and By-products	89,751	0.189	3.78	1.95	25.01
Custom Concentrates	26,548	—	—	—	—

The tonnage and metal content of blister copper produced for the Company's account and shipment to the refinery was as follows:

Tons	Au-oz.	Ag-oz.	Cu-lbs.	Se-lbs.
38,884	72,286	1,032,332	76,925,282	114,972

Smelter oxide recovery amounted to 8,124 tons, assaying 32% Zn, 2.95% Cu, 1.58% Cd, and 12.8% Pb. This material was delivered to the zinc plant for treatment.

FUMING PLANT

The tonnage and assay of the slag charged to the fuming furnaces and the oxide produced are shown below.

	Tons	Zn-%
Smelter Slag Charged	407,900	7.2
Oxide Produced	36,484	69.4

The oxide, containing 50,651,000 pounds of zinc, was delivered to the zinc plant for processing to zinc slab.

ZINC OXIDE COMPANY OF CANADA LIMITED

Zinc Oxide Company of Canada Limited and Durham Industries (Canada) Ltd. completed their second year under Hudson Bay ownership. The plant, located in Montreal, with a production capacity of ten thousand tons of zinc oxide per annum, operated at maximum for ten months. An eight-week strike during the last quarter of the year shut down the operation; however, inventory in outside warehouses enabled sales of oxide to be maintained during that period. The construction of the zinc dust plant was halted by the strike but it is hoped that the installation can be completed and production commenced by February, 1967.

HUDSON BAY DIECASTINGS LIMITED

Hudson Bay Diecastings commenced operations during mid-1966 coinciding with the beginning of the 1967 automotive year. The initial plant production has been on a modest basis to date because of the necessity to prove a performance record. With carry-over jobs and new work under contract, it is expected the plant will operate on a two-shift basis during 1967. Early in 1967, the plant will be using zinc diecasting alloy produced by the parent company.

HUDSON BAY EXPLORATION AND DEVELOPMENT COMPANY LIMITED

The Company's exploration crews operated mainly in Northern Manitoba and Saskatchewan but also carried out work in Ontario, Quebec, the Yukon Territory, and the Northwest Territories. The Company also participated financially in ventures directed by other companies in Ontario, Quebec, British Columbia, and in the Southwestern United States.

Diamond drilling on Company claims and optioned properties in Manitoba and Saskatchewan totalled 154,021 feet. An additional 16,722 feet

were drilled on ground explored in joint ventures in Ontario and Quebec.

Two small orebodies located in Manitoba, 55 miles east of Flin Flon, were defined by diamond drilling on property held by Dickstone Copper Mines Limited.

In view of improved metal prices, three previously located copper-zinc zones on claims held by the Company in Northern Manitoba were reassessed. Considerable diamond drilling has been carried out in an attempt to outline ore sections within these zones and results have been sufficiently encouraging to warrant continuation of this work in 1967.

Prospecting crews in the Yukon and Northwest Territories discovered several mineralized showings and geochemical anomalies that warrant further investigation.

In Northwestern Quebec a drilling program continued to investigate electromagnetic anomalies and in the Noranda area drilling was terminated on the Mespi-Rouyn option. In the Sudbury area of Ontario radiometric surveys were carried out and drilling started on the Assembly Uranium option. All of this was shared with Anmercosa Canadian Exploration Limited.

Financial interests were maintained in Mespi Mines Limited, which continued exploration of its extensive holdings in the Timmins area of Ontario, and in Deniza Mining Corporation and Verde Exploration, both of which continued exploration projects in the Southwestern United States.

In Gaspe, Quebec, detailed diamond drilling in the venture directed by Terra Nova Explorations Limited revealed structural and lithological complications on the Lesseps Township copper discovery. A small, low-grade deposit is indicated and further investigation is warranted.

General Manager's Report (Continued)

Of 30 properties submitted to the Company and examined in 1966, two were optioned. Three other options were dropped and three were left in good standing at the end of the year. During the year 1,004 claims were acquired and 2,678 claims were dropped. At year end the Company held a total of 3,159 claims. In Saskatchewan 35,889 acres were acquired, making a total of 105,084 acres held in claim blocks in this province at the end of the year.

HUDSON BAY AIR TRANSPORT LIMITED

This company completed a very active and satisfactory year. A Cessna 185A aircraft was added to the fleet late in the year. The aircraft were airborne 2,770 hours and flew 290,110 miles. Since the start of operations in 1939, a total of 4,258,813 miles have been flown. The aircraft were used chiefly in conjunction with exploration work carried out by Hudson Bay Exploration and Development Company Limited.

CHURCHILL RIVER POWER COMPANY LIMITED

The Island Falls hydro-electric plant, located on the Churchill River, fifty-six air miles northwest of Flin Flon, operated throughout the year with no major interruptions. The total power generated amounted to 646,912,400 kilowatt hours, slightly more than last year.

Progress on automation of the plant has advanced steadily despite some delay in delivery of equipment.

The Company's electrical equipment and transmission lines were well maintained.

Precipitation over the entire Churchill watershed was slightly below normal and totalled 17.19 inches. Reindeer Lake storage was maintained at a satisfactory level.

NORTHERN MANITOBA POWER COMPANY LIMITED

Light and power requirements for the towns of Flin Flon and Snow Lake in Manitoba were supplied by Northern Manitoba Power Company Limited, a wholly owned subsidiary of Churchill River Power Company Limited. Power requirements for the town of Flin Flon were 2.9 per cent higher than for the previous year, and for the town of Snow Lake were 3.3 per cent higher.

NORTHERN POWER LIMITED

This Company, a wholly owned subsidiary of Northern Manitoba Power Company Limited, supplied the light and power requirements for the town of Creighton and Denare Beach in Saskatchewan, and the Boundary Area, located adjacent to Flin Flon on the Saskatchewan side of the inter-provincial boundary. Power consumption increased by 32.7 per cent over the year 1965, mainly due to the operation at Flexar Mines Limited.

RESEARCH ASSAYING DEPARTMENT

The proposal to produce iron and sulphur in a marketable form from pyrite concentrates received continuous attention during the year. Market surveys for the plant products were carried out concurrently with the test program.

Investigations, to improve existing operations, which were continued or initiated during the year included: pilot testing the removal of waste from mine ore by an electroconductive sorting, a polarographic analysis of concentrator control samples, cadmium plant circuit modifications, soluble zinc losses and circuit dilution during zinc leaching, the economics of copper concentrates roasting in fluid bed reactors, the advantages of granulating smelter slag.

Assaying facilities were maintained and extended, and full co-operation was given to the operating plants in maintaining high standards and effecting improved operation.

MECHANICAL AND CONSTRUCTION DEPARTMENT

Value of new construction in 1966 was slightly below that of 1965 and totalled \$1,697,000.00.

The program of cell replacement in the concentrator was continued and 90 cells were replaced.

A modern, semi-automatic 75,000 pound package boiler was installed in the smelter power house, thus assuring an adequate supply of steam.

The installation of two induction furnaces in the zinc casting plant, to be used for the production of zinc alloys, was almost complete by the year end.

A complete sewer and water system was installed in a new subdivision at Snow Lake.

The surface plant was completed at the Anderson Lake Mine.

All plant buildings and equipment were well maintained throughout the year.

ELECTRICAL DEPARTMENT

Total plant electrical consumption for the year was 572,479,000 kilowatt hours, slightly higher than in 1965.

Automatic electrical control equipment was installed in the concentrator lime unloading and feeding system as well as automatic control of ore feed to two ball mills.

A speed control system was installed for the automatic control of copper concentrate pumping to the filter plant.

Auxiliary equipment for two new zinc plant induction furnaces was installed.

A complete power distribution system was installed in a new subdivision at Snow Lake.

A high standard of electrical maintenance was carried on throughout the year and all equipment operated satisfactorily.

SURFACE AND TRANSPORTATION DEPARTMENT

This department carried on its regular task of supplying the mines with backfill, the smelter with flux, and the fuming plant with residue. Other duties included the haulage of ore to Flin Flon from the outlying mines in that area; spotting of incoming cars of freight, coal, ore from the Snow Lake area, and custom concentrates for unloading; assembling of outgoing zinc and copper shipments; and delivering plant operating supplies, including winter freight to the Island Falls power plant and community.

All roads in the vicinity of the Company's metallurgical plants were maintained by this department.

HEALTH AND SAFETY

The general health of all employees was good throughout the year. The Employees' Health Association and the Medical Clinic provided excellent service.

Lost time injuries were reduced by 25 per cent as a result of an intensified accident prevention program in all surface departments. In recognition of reduced accident frequency and severity for the years 1963 through 1965, the National Safety Council presented the Award of Merit to the Mine Departments.

General Manager's Report (Continued)

In the final Provincial Mine Rescue Contest, a team from the Flin Flon Mine, for the second consecutive time, was successful in taking first prize by winning the Mine Safety Appliances Trophy.

A well organized and varied recreation program was conducted throughout the entire year by each of the employee-operated Community Clubs in Flin Flon, Island Falls and Snow Lake.

The Company-developed recreational facilities at Phantom Lake again proved popular and contributed toward the general health and happiness of all residents.

WATER SUPPLY

The rainfall for the year, 13.62 inches, although 1.41 inches below last year, was still .62 inches above the average for the last ten years in the Flin Flon area. The snowfall, 63.0 inches, was also less than last year but still 6.5 inches above the average for the last ten years.

GENERAL

During the latter part of the year notification was received from the Federal Department of Labour advising that United Steelworkers of America had applied for certification to represent the employees presently certified under the Flin Flon Base Metal Workers' Federal Union No. 172. A letter of intervention has been filed by our Company with the Department of Labour to the effect that the appropriate unit for collective

bargaining is all eligible hourly-rated employees rather than those employees requested by the applicant.

Twenty-five new homes, for resale to employees moving to the Snow Lake area, were built this past summer. A total of 134 new homes have now been completed.

The employees' Retirement Pension Plan was integrated with the Canada Pension Plan on January 1st, 1966.

The shortage of qualified labour was acute throughout the year.

The average number of employees on the payroll during 1966 was 2,684, an increase of two from the previous year.

One hundred and twenty-two members were added to the employees' Twenty-Five-Year Club, making a total of 818 who have joined since the beginning of operations. Of these, 602 are still on the active payroll.

A good relationship between Labour and Management prevailed throughout the year.

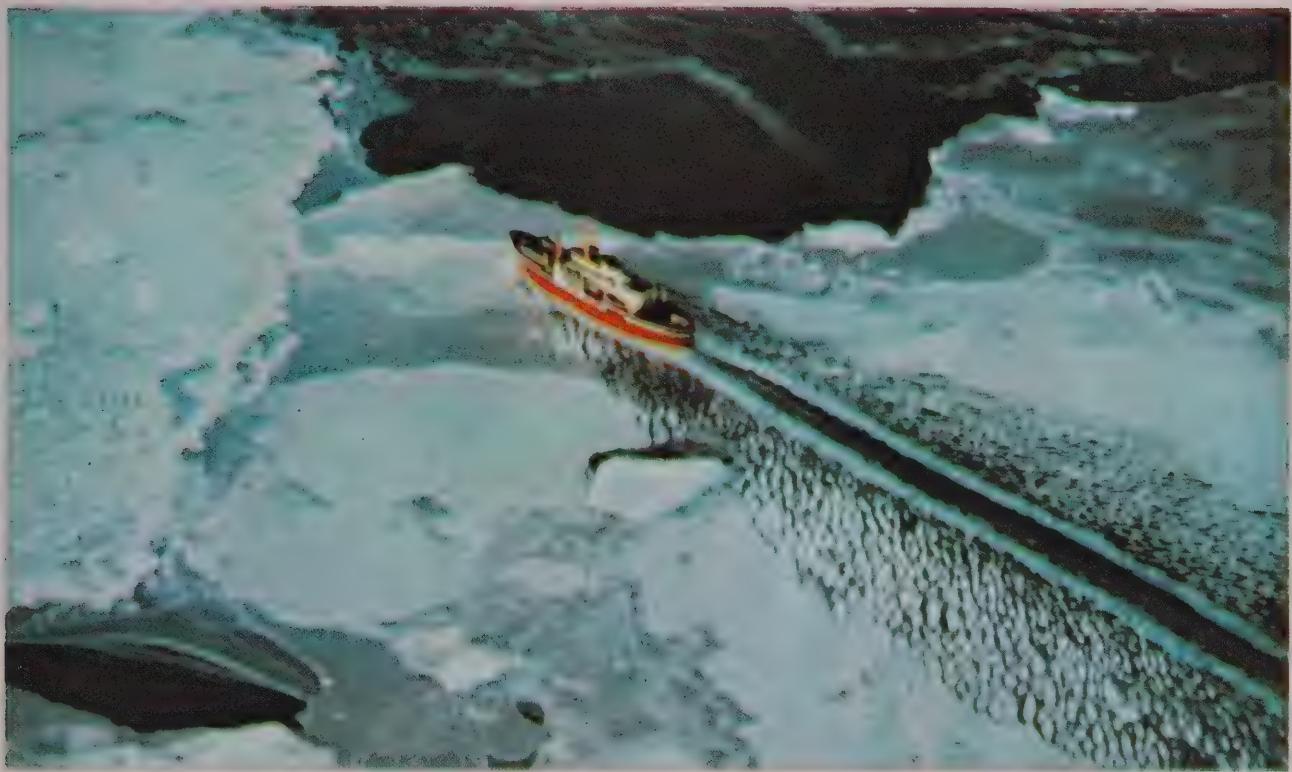
Respectfully submitted,

W. A. Morris

General Manager.



No. 1 Orebody, Baffinland Iron Mines Limited in which Hudson Bay Mining and Smelting Co., Limited holds an interest



Federal Icebreaker "JOHN A. MACDONALD" working at entrance to Pond Inlet, Baffin Island

CONSOLIDATED BALANCE SHEET AS AT

ASSETS

CURRENT ASSETS:

	1966	1965
Cash	\$ 2,770,001	\$ 2,573,402
Short-term deposit receipts	3,500,000	—
Government of Canada securities (at cost plus discount amortized) and accrued interest		
(market value 1966 — \$8,995,813; 1965 — \$15,317,198)	9,029,720	15,399,641
Accounts receivable — metals and sundry	7,118,035	6,354,823
Inventories of metals and products (Note 6)	13,584,044	13,745,443
Material and supplies, at average cost	4,580,806	4,076,953
Total current assets	<u>40,582,606</u>	<u>42,150,262</u>

INVESTMENTS:

Marketable securities (Note 4)	20,816,981	18,851,904
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INTERESTS IN EXPLORATION AND OTHER COMPANIES:

Unconsolidated subsidiaries (Notes 1 and 2):		
Capital stock, at cost	10,396,181	3,187,895
Advances	1,725,975	2,049,746
	<u>12,122,156</u>	<u>5,237,641</u>
Other companies, at cost (no quoted market value)	2,972,348	1,130,319
	<u>15,094,504</u>	<u>6,367,960</u>
Less allowance for losses	4,406,629	3,105,360
	<u>10,687,875</u>	<u>3,262,600</u>

PROPERTY, PLANT AND EQUIPMENT—at cost:

Plant and equipment	69,991,680	66,757,452
Mining claims, oil rights and land	12,532,911	12,441,468
	<u>82,524,591</u>	<u>79,198,920</u>
Less accumulated depreciation and depletion	60,847,804	59,190,453
	<u>21,676,787</u>	<u>20,008,467</u>

OTHER ASSETS:

Prepaid preparatory mining expense	10,909,650	9,844,531
Special refundable tax and accrued interest	585,834	—
Sundry assets and deferred charges, at cost	3,468,623	2,503,313
	<u>14,964,107</u>	<u>12,347,844</u>
	<u><u>\$108,728,356</u></u>	<u><u>\$96,621,077</u></u>

DECEMBER 31, 1966 (with 1965 figures for comparison)

LIABILITIES AND SHAREHOLDERS' EQUITY

CURRENT LIABILITIES:	1966	1965
Accounts payable and accrued liabilities	\$ 3,255,221	\$ 3,456,087
Income and other taxes payable	3,219,497	3,226,949
Total current liabilities	<u>6,474,718</u>	<u>6,683,036</u>
DEFERRED INCOME TAXES (Note 5)	<u>3,857,000</u>	<u>3,488,000</u>
SHAREHOLDERS' EQUITY:		
Capital stock:		
Authorized, 3,000,000 shares of no par value		
Issued and fully paid, 2,820,473 shares (Note 2)	34,984,205	30,984,205
Retained earnings	<u>63,412,433</u>	<u>55,465,836</u>
	<u>98,396,638</u>	<u>86,450,041</u>
Approved by the Board of Directors:		
MAURICE W. RUSH, Director.		
ERIC S. AUSTIN, Director.		
	<u>\$108,728,356</u>	<u>\$96,621,077</u>

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENT OF EARNINGS

FOR THE YEAR ENDED DECEMBER 31, 1966 (with 1965 figures for comparison)

REVENUE:

	1966	1965
Revenue from metals and metal products	\$68,406,942	\$61,204,027
Less freight, refining and selling expenses	6,657,554	6,815,522
	61,749,388	54,388,505
Revenue from sales of power and from treatment of custom concentrates	705,211	498,271
	62,454,599	54,886,776

EXPENDITURES:

Production costs, adjusted for inventory values	26,622,054	25,033,082
Preparatory mining expense charged to operations	2,780,600	2,537,465
Ore royalties	2,084,552	1,759,601
Taxes, other than on income	1,122,611	835,211
General administrative expenses	682,390	573,886
Salaries to executive officers	197,835	186,458
Counsel fees	16,833	17,147
Directors' fees	20,355	20,041
	33,527,230	30,962,891
	28,927,369	23,923,885

DEDUCT:

Depreciation	1,645,739	1,489,729
Depletion	165,858	162,169
Allowance for losses on interests in exploration and other companies	3,000,000	2,000,000
	4,811,597	3,651,898
	24,115,772	20,271,987

OTHER INCOME:

Income from investments and oil rights	1,394,785	1,484,115
Sundry income and gain on disposal of assets	94,831	1,943
	1,489,616	1,486,058

EARNINGS BEFORE TAXES ON INCOME

ESTIMATED TAXES ON INCOME (Note 5)

NET EARNINGS FOR THE YEAR — transferred to retained earnings

25,605,388	21,758,045
6,489,000	5,768,000
\$19,116,388	\$15,990,045

CONSOLIDATED STATEMENT OF RETAINED EARNINGS

FOR THE YEAR ENDED DECEMBER 31, 1966 (with 1965 figures for comparison)

BALANCE BEGINNING OF THE YEAR	\$55,465,836	\$49,818,190
Add net earnings for the year (Note 2)	19,116,388	15,990,045
	74,582,224	65,808,235
Deduct dividends paid (Note 2)	11,169,791	10,342,399
BALANCE END OF THE YEAR	\$63,412,433	\$55,465,836

The accompanying notes are an integral part of the financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS DECEMBER 31, 1966

1. The accompanying consolidated financial statements include the accounts of Hudson Bay Mining and Smelting Co., Limited and the following wholly owned subsidiaries:

Churchill River Power Company Limited
 Zinc Oxide Company of Canada Limited
 (including its wholly owned subsidiary)
 Hudson Bay Diecastings Limited
 Hudson Bay Holdings Limited

The accounts of Francana Oil & Gas Ltd., 60% owned by Hudson Bay Mining and Smelting Co., Limited, are not consolidated herein because the parent company's interest in the subsidiary was not acquired until December 30, 1966. The accounts of other subsidiaries are not consolidated herein because they are either inactive or operate at cost and therefore have had no earnings or losses since acquisition.

The accounts of Hudson Bay Diecastings Limited, which did not become operative until June 30, 1966, were not included in the 1965 consolidated financial statements. Accordingly, the 1965 comparative figures have been revised to reflect them on a consolidated basis.

2. On December 30, 1966 the parent company acquired from Credit Foncier Franco-Canadien a 60% interest in Francana Oil & Gas Ltd. for a total consideration of \$7,200,000, comprising the issue of 62,500 unissued shares of Hudson Bay Mining and Smelting Co., Limited at an assigned value of \$4,000,000 and a cash payment of \$3,200,000.

Net earnings per share of \$6.93 (1965 — \$5.80) and dividends paid per share of \$4.05 (1965 — \$3.75) have been calculated on the basis of 2,757,973 shares outstanding prior to the above transaction.

3. Foreign currencies have been converted to Canadian dollars as follows: revenue and expenditure and non-current assets and liabilities at rates in effect at dates of transactions; current assets and liabilities at rates in effect at the end of the respective years.

4. In the case of a consolidated subsidiary with investments in South African gold mining companies (which do not provide for depreciation or depletion in their accounts), a portion of the dividend income represents repayment of capital. The company's estimate of such amount received during the year which has been credited to investment account is \$49,110 (1965 — nil). The cost of the related investments is reduced by the amount so excluded from earnings.

It is the practice of the parent company and other subsidiaries to carry investments at cost and credit interest and dividend income to earnings.

5. Prepaid preparatory mining expense and costs of participation in certain mining companies (both of which are regarded as assets and therefore have not yet been charged to earnings) to the extent that they are allowable deductions for tax purposes, are claimed in the determination of taxable income in the year in which they are incurred. The resultant tax reduction is included in the Balance Sheet as a liability under the heading of "Deferred Income Taxes", and this makes provision for those future periods when amounts claimable for tax purposes will be less than the relative charges to earnings. The amount of "Deferred Income Taxes" was increased by \$369,000 in 1966 and by \$442,000 in 1965, with corresponding charges being made to earnings.

6. Inventories at December 31 comprise the following:

	1966	1965
Metals at estimated sales value	\$12,165,519	\$12,357,649
Metals and products (finished, in process and raw materials), at cost or market whichever is the lower	1,418,525	1,387,794
	<hr/>	<hr/>
	\$13,584,044	\$13,745,443

AUDITORS' REPORT

To the Shareholders of
Hudson Bay Mining and Smelting Co., Limited:

We have examined the consolidated balance sheet of Hudson Bay Mining and Smelting Co., Limited and its consolidated subsidiaries as at December 31, 1966 and the consolidated statements of earnings and retained earnings for the year ended on that date. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the accompanying consolidated balance sheet and consolidated statements of earnings and retained earnings present fairly the financial position of the companies as at December 31, 1966 and the results of their operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

DELOITTE, PLENDER, HASKINS & SELLS

Chartered Accountants.

Winnipeg, Manitoba,
February 17, 1967.

PORTFOLIO OF INVESTMENT SECURITIES

On December 31, 1966 the investment portfolio of Hudson Bay Mining and Smelting Co., Limited and its subsidiary Hudson Bay Holdings Limited was as follows:

Hudson Bay Mining and Smelting Co., Limited

50,000 shares	Abitibi Paper Company Ltd.
5,000 "	Alcan Aluminium Limited — Common
10,000 "	Alcan Aluminium Limited — 4 1/4 % Preferred
36,000 "	Algoma Steel Corporation Limited
29,464 "	Bell Telephone Company of Canada
32,000 "	Canadian Industries Limited
21,000 "	Canadian Pacific Railway Company
5,000 "	Debhold (Canada) Limited — 6 1/4 % Preferred
27,000 "	Domtar Limited
18,000 "	Du Pont of Canada Limited
15,000 "	Falconbridge Nickel Mines Limited
25,000 "	Home Oil Company Limited "B"
22,000 "	Imperial Oil Limited
28,000 "	International Nickel Company of Canada Limited
37,000 "	MacMillan Bloedel Limited
6,000 "	McIntyre-Porcupine Mines Limited
15,000 "	Noranda Mines Limited
30,000 "	Northern and Central Gas Company Limited
18,700 "	Placer Development Limited
6,000 "	Royal Bank of Canada
13,750 "	Texaco Canada Limited
15,000 "	Trans-Canada Pipe Lines Limited
12,000 "	Union Carbide Canada Limited
\$ 50,000 par value	Imperial Oil Limited 3% Bonds — 1969
205,000 " "	Trans-Canada Pipe Lines Limited 5% Convertible Bonds — 1989

Hudson Bay Holdings Limited

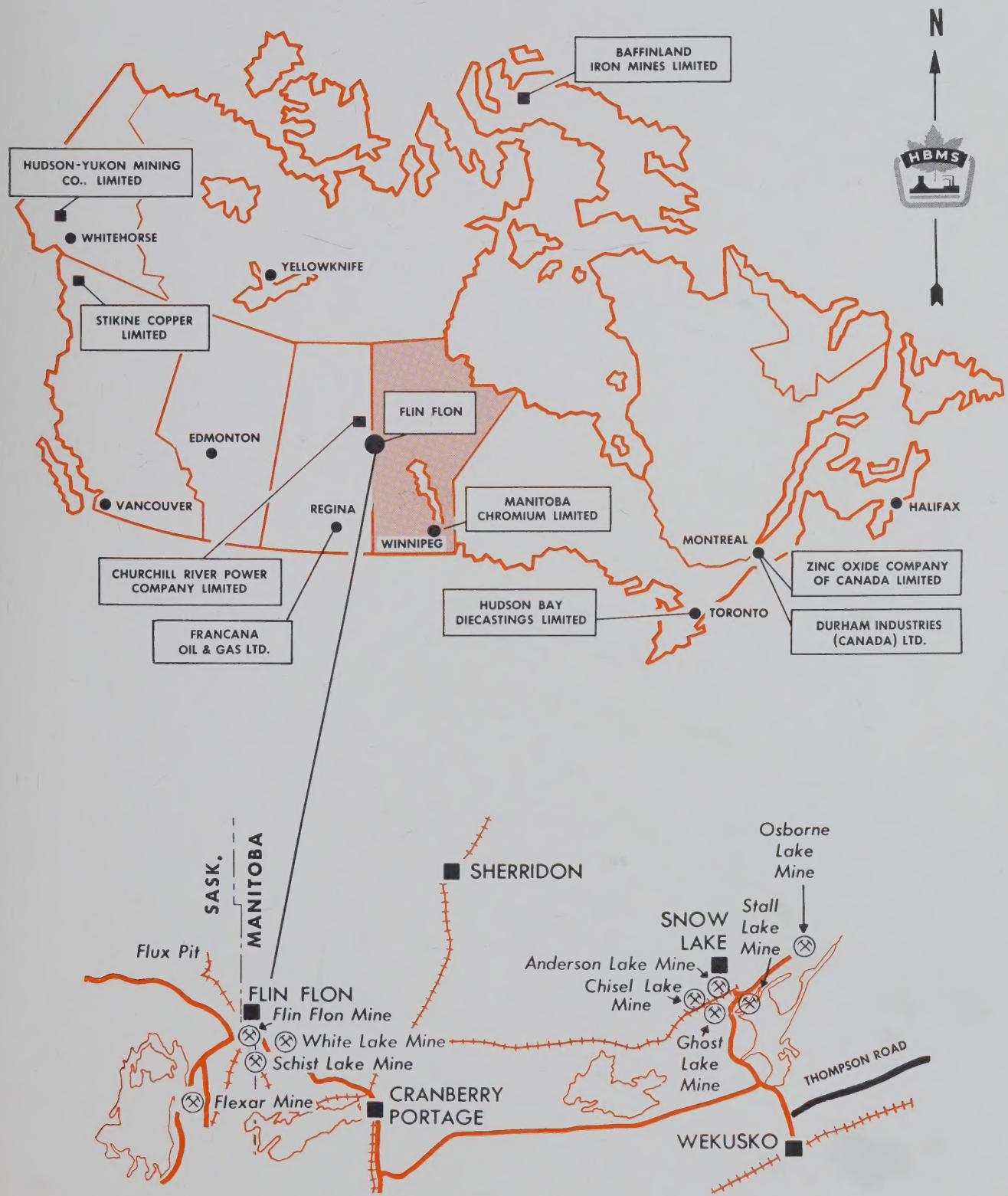
5,000 shares	Anglo American Corporation of South Africa Limited
16,500 "	De Beers Consolidated Mines Limited
84,000 "	Blyvooruitzicht Gold Mining Co. Limited
15,000 "	Buffelsfontein Gold Mining Co. Ltd.
40,000 "	Hartebeestfontein Gold Mining Co. Ltd.
22,500 "	President Brand Gold Mining Co. Ltd.
7,000 "	Vaal Reefs Exploration and Mining Co. Ltd.
10,000 "	Western Holdings Ltd.
35,000 "	Western Reefs Exploration and Development Co. Ltd.

MANAGEMENT AND OPERATING PERSONNEL

FLIN FLON	W. A. MORRICE	General Manager
	H. A. MCKENZIE	Assistant General Manager
	G. H. McINTOSH	Assistant to the General Manager
	L. G. JOHNSON	Personnel Supervisor
	J. S. WARICK	Superintendent of Mines
	A. E. STEPHANSSON	Mine Superintendent — Flin Flon Area
	R. G. SADLER	Mine Superintendent — Snow Lake Area
	R. B. CAIRNS	Chief Geologist — Mining
	J. R. BRAY	Chief Engineer of Mines
	D. J. ROBERTSON	Research Superintendent
	J. E. GOODMAN	Concentrator Superintendent
	W. E. McFADDEN	Zinc Plant Superintendent
	G. H. KENT	Smelter Superintendent
	M. N. COLLISON	Mechanical and Construction Superintendent
	G. HAMMERSTAD	Electrical Superintendent
	F. H. GUMMERSON	Powerhouse Superintendent
	B. F. GRIMMELT	Surface and Transportation Superintendent
	O. C. CHRISTENSEN	Hydro Plant Superintendent
	R. L. PRICE	Western Superintendent of Exploration
	E. A. MORE	Air Transport Superintendent
WINNIPEG	J. L. AYRE	Purchasing Agent
	J. H. BURGOYNE	Traffic Manager
TORONTO	L. W. OGRYZLO	Director of Exploration
	DR. J. B. HOWKINS	Chief Geologist
	K. A. GAMEY	Resident Geologist
	C. O. BUCHANAN	Manager of Metal Sales
	J. D. PURVIS	Assistant Manager — Metal Sales
	G. F. CLARK	General Manager — Diecastings Plant
MONTREAL	D. B. CLARK	General Manager — Zinc Oxide Plant

LOCATION MAP

SHOWING CANADIAN PROPERTIES OF HUDSON BAY MINING AND SMELTING CO. LIMITED
OWNED WHOLLY OR IN PART





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